



# CLOVERLAND AVENUE WELL C-046B SPECIAL EXCEPTION

PRELIMINARY DEVELOPMENT PACKAGE



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# Cloverland Avenue Well C-046B SCADA Upgrade Special Exception

350 North Cloverland Avenue  
Tucson, Arizona 85711

*Submitted to:*

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**Planning & Development Services Department**  
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## I. INTRODUCTION



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This document is submitted on behalf of the City of Tucson Water Department (Tucson Water) as a requirement for a special exception application for minor technology improvements to the well located at 350 North Cloverland Avenue. The site is north of Broadway Boulevard and west of Craycroft Road at the southeast corner of East 7<sup>th</sup> Street and North Cloverland Avenue.

The well site occupies the northern portion, approximately 0.1 acres, of the larger parcel identified by Assessor Parcel Number (APN) 127-07-115A. (see *Exhibit I: Project Location*). The City of Tucson owns the property. It is zoned R-1 (Residence) and located within Township 14 South, Range 14 East, Section 11,

In accordance with Unified Development Code Section 4.7.4, the proposed utility distribution use is permitted as a special exception use within the R-1 (Residence) zone, upon approval from the Zoning Examiner. Given that this special exception also includes a direct ordinance adoption request and corresponding Development Package per Section 2-06.0.0 of the Unified Development Code (UDC), this is a condensed Preliminary Development Package. The Development Package is submitted under separate cover.

### **A. Background**

As part of a long-term water management strategy to improve water quality and delivery services, Tucson Water's Water Quality and Operations Division have been diligently working to install several technology and instrument upgrades to better monitor water service at more than 200 wells, 61 reservoirs, and 266 sampling stations throughout the Tucson Water service area. The Cloverland Avenue Site (Well C-046B) is one of these wells serving as a critical water supply facility within the Tucson Water service area. It requires some upgrades to the existing Supervisory Control and Data Acquisition (SCADA) system currently located in the site's northwest portion.




The SCADA system is a computerized remote monitoring system that moves water efficiently throughout the community, maintains water pressure, collects water system data, and regulates water monitoring. The upgrades are primarily technology improvements; however, such modifications require adding equipment to the existing well and installing a new shade structure to protect existing electrical components. Due to the site's existing zoning and the proposed modifications, it was determined that approval of a special exception was necessary. The new shade structure and the new SCADA system are the only improvements anticipated. No other site modifications are proposed.

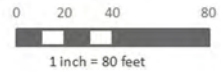


Exhibit I: Project Location



**Legend**

-  Subject Parcel (APN 127-07-115A)
-  Well Site (+/-0.10 acres)
-  Parcels



File Name: C-046\_location  
Source: Pima County GIS 2020



## B. Tucson Water Policy Guidance

Tucson Water has a long-term strategy to improve water system redundancy and upgrade existing infrastructure elements to better monitor water service throughout the distribution system. Water supply redundancy is being accomplished through the drilling of replacement wells within the older Central Well Field System. Substantial capital investment has already been made in replacing the 30-year-old SCADA system. The main central control system hardware and software have already been replaced, and the next step in the process involves upgrading the SCADA system capabilities at remote locations, including well sites, booster stations, and reservoirs.

Policy guidance for this work is provided through the (Draft) 2020 Drought Preparedness and Response Plan. Further authorization for the completion of upgrades to the SCADA system is also provided in the Department's Capital Improvement Plan budgets. In the early 2000s, Tucson Water discontinued pumping non-renewable groundwater resources and converted to renewable Colorado River water resources. This action has been taken to comply with the 1980 Arizona Groundwater Code, which aims to reduce over-drafting of local aquifers. One of the consequences of over-drafting aquifers is lowering the water table, ultimately rendering older wells inoperable.

## C. Conformance with Plan Tucson and Area Plan

The project site is subject to the policies laid forth in the City of Tucson's General and Sustainability Plan, *Plan Tucson*, and the *Broadway-Pantano Area Plan*.

### 1. Plan Tucson

The subject property is within an area designated by *Plan Tucson* as an "Existing Neighborhood." The proposed SCADA upgrade aligns with this designation as it continues to provide a low-impact use in a predominantly residential area. The SCADA system upgrade will allow Tucson Water to continue to provide safe and sustainable clean drinking water supply for the community. The following policies in *Plan Tucson* support the proposed well site:

- *LT28.1.3 – Improve the appearance of above-ground utilities and structures.*

As part of the improvements, a new shade structure will be installed to protect electric equipment and painted to match the existing shade structure.

- *LT28.2.12 – Support environmentally sensitive design that protects the integrity of existing neighborhoods, complements adjacent land uses and enhances the overall function and visual quality of the street, adjacent properties, and the community.*

Existing landscape material will remain in place and continue screening utility equipment from surrounding neighbors.

Other policies that support the SCADA upgrade include:

- *PI1 – Invest in the highest priority needs to manage and maintain public infrastructure and facilities that are fundamental to economic development and to sustaining and enhancing living conditions in the community;*



- *PI2 – Prioritize major public infrastructure investments in developed areas and for improvements of existing infrastructure; and*
- *PI3 – Expand the use of state-of-the-art, cost-effective technologies, and services for public infrastructure and facilities.*

## **2. Broadway-Craycroft Area Plan**

Mayor and Council adopted the *Broadway-Craycroft Area Plan* on September 26, 1988, to provide policy direction for approximately 1,920 acres in central Tucson. Speedway Boulevard bounds the L-shaped plan area to the north, 22<sup>nd</sup> Street to the south, Craycroft Road and Wilmot Road to the east, and Swan Road to the west. The well site is near the center of the northern portion of the plan area. (see *Exhibit I.C.2: Location Within Area Plan Boundary*).

The intent of the *Broadway-Craycroft Area Plan* is to ensure that new development, both residential and non-residential, is in harmony with the area's existing residential nature. Area plan policies focus on ensuring compatibility between non-residential uses and neighboring residences.

Tucson Water's SCADA improvements to the existing well site conform to the *Broadway-Craycroft Area Plan* by:

- Providing required parking within the well yard and off of residential streets;
- Preserving existing perimeter landscaping and fencing;
- Protecting view corridors of the Santa Catalina Mountains; and
- Ensuring continuity of materials by matching the new shade structure to existing, on-site structure.

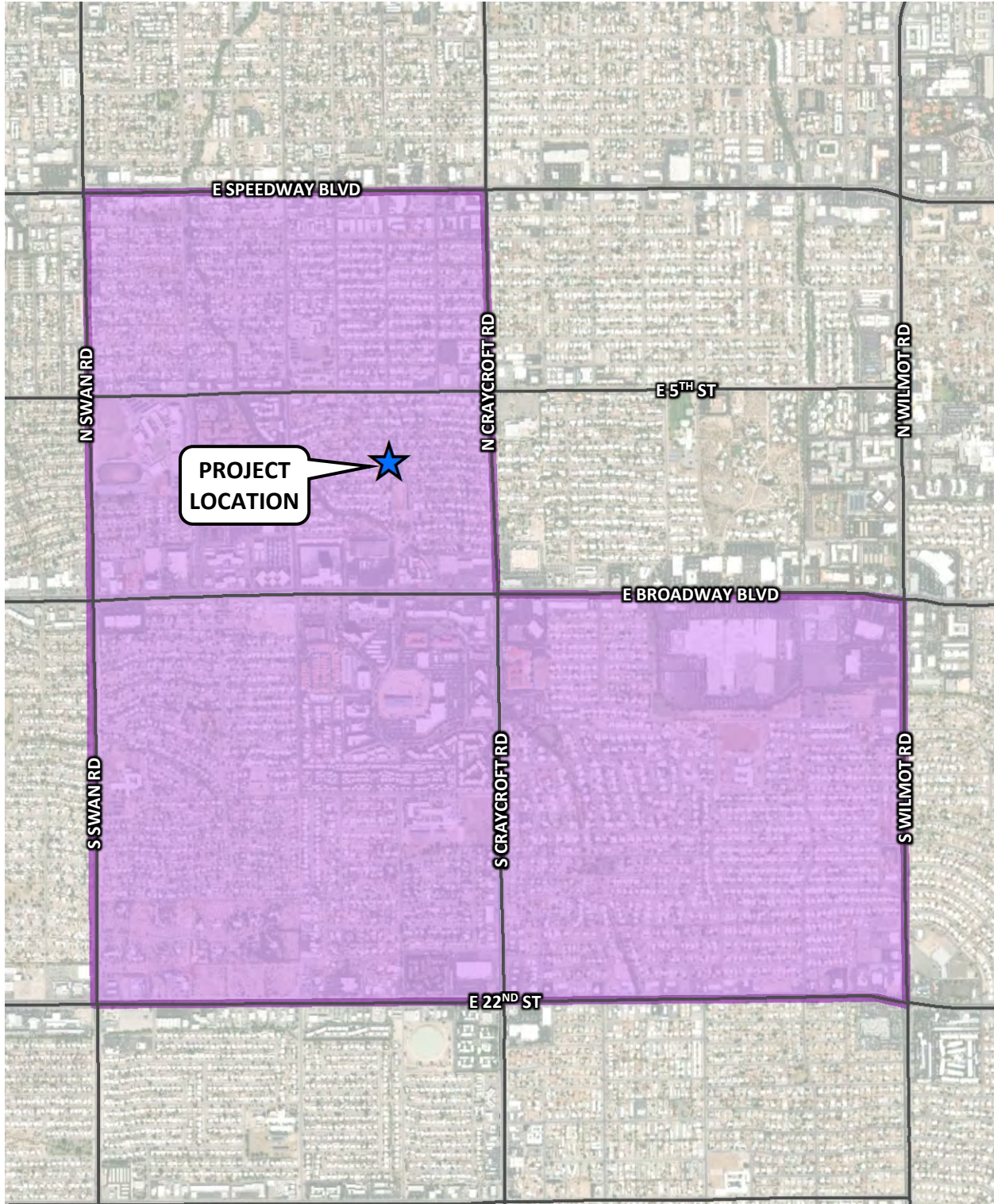
### **D. Conflicts with Adopted City Ordinances or Policy**

The proposed utility use does not conflict with the *Broadway-Craycroft Area Plan* or *Plan Tucson*. The proposed use is permitted by the City of Tucson Unified Development Code pending the approval of the special exception application.








Exhibit I.C.2: Location within Area Plan Boundary



**Legend**

-  Project Location
-  Broadway-Craycroft Area Plan

 Major Street



0 500 1,000 2,000  
1 inch = 2,000 feet

File Name: C-046\_area\_plan\_6x8  
Source: Pima County GIS 2020





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## II. SITE ANALYSIS



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## A. General Information

### 1. Project Location

The area subject to this request is a 0.10-acre portion of a City-owned parcel located at 350 North Cloverland Avenue, identified by APN 127-07-115A. The site is in the Highland Vista Cinco Via neighborhood at the northwest corner of Highland Vista Park. (see *Exhibit I: Project Location*).

### 2. On-site and Adjacent Land Uses

As demonstrated on *Exhibit II.A.2.a: Existing Conditions*, the site contains the following:

- Well C-046B;
- Shade structure housing electric control components;
- Communication antenna (20' in height);
- Sanitizing station;
- Concrete block wall and chain-link fence topped with barbed wire;
- Piping and other necessary equipment to properly function the well.

The site and adjacent properties are zoned R-1 (Residence). Land-use to the north and west is medium-density single-family detached homes. A community garden abuts the site's southern border. The garden is part of the Community Gardens of Tucson network of community gardens. For a fee, neighbors have access to a garden plot, gardening tools, and advice as well as water. The garden is currently in use, with several plots under cultivation.

The Highland Vista Neighborhood Recreation Center borders the site to the east. This volunteer-run aquatic recreation center serves neighborhood residents as well as the larger community. Membership fees are required to use the facility. The swimming pool is open year-round for recreational and competitive swimming instruction and neighborhood parties held at the center for Memorial Day, Independence Day, and Labor Day.

Primary ingress/egress is from Cloverland Avenue through a locked vehicular access gate at the property's southwest corner. The access point will remain in its current configuration. A second vehicle gate is at the southwest corner of the property. This gate leads to the community garden to the south and will remain permanently locked.

Refer to *Exhibit II.A.2.b: Site Photos* and *Exhibit II.A.3.c: Zoning and Land Uses*.

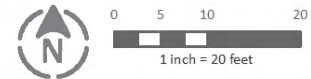


Exhibit II.A.2.a: Existing Conditions



**Legend**

- Subject Parcel (APN 127-07-115A)
- Existing Structures
- Well Site (+/-0.10 acres)
- Parcels



File Name: C-046\_site\_6x8  
Source: Pima County GIS 2020



Exhibit II.A.2.b: Site Photos



Exhibit II.A.2.b: Site Photos (continued)

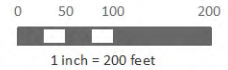


Exhibit II.A.2.c: Zoning and Land Uses



**Legend**

- Subject Parcel (APN 127-07-115A)
- Well Site (+/-0.10 acres)
- Parcels
- 500-foot Radius
- R-1 Zone



File Name: C-046\_landuse\_6x8  
Source: Pima County GIS 2020



**B. Circulation & Trips**

The site subject to this request is at the southeast corner of North Cloverland Avenue and East 7<sup>th</sup> Street, both of which are minor local roads. North Craycroft Road is the nearest arterial street that lies approximately 0.25 miles to the east. Cloverland Avenue and 7<sup>th</sup> Street are two-lane roads with rights-of-way of widths of 60'. Both streets feature rolled curbs and have neither sidewalk nor striping.

Primary ingress and egress will continue from Cloverland Avenue utilizing the existing vehicular access gates at the southwest property corner. Given that the proposed use generates no traffic except for trips generated as a result of routine maintenance, there will be no impact on the surrounding street network.

**C. Cultural Resources**

The well site has been in use for decades, with numerous improvements and maintenance occurring over time. It is unlikely any significant cultural resources are present on the site.

**D. Hydrology & Drainage**

The site has been entirely graded, and the internal yard has been covered with gravel to prevent erosion. The subject property is not within a 100-year floodplain. It does not contain any drainageways subject to the Environmental Resource Zone (ERZ) provisions, Watercourse Amenities, Safety, and Habitat (WASH) ordinance or erosion hazard setback areas.

**E. Views**

A combination of chain-link fence and block wall entirely encloses the well yard. The chain-link fence is 6' in height and topped with an additional 1' barb wire for security purposes. Tan privacy slats are currently installed in the fence, screening the site from neighboring views. The wall is 7' in height and built of 4" tan concrete blocks. The walls form the four corners of the yard, creating a terminus for the chain-link fence. Evergreen shrubs and trees screen views from the north.

Two on-site structures extend above the wall/fence, the communications antenna (approximately 20') and the shade structure over the electric control panel (8').

The existing landscape will remain unaltered and will continue to screen well equipment from neighboring views. With such minimal alterations to the site, the improvements will have little to no view impacts.







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## III. LAND USE PROPOSAL



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**A. Site Layout**

As demonstrated on *Exhibit III.A: Preliminary Development Plan (PDP)*, the proposed improvements consist of constructing an additional shade structure to protect the existing electrical control panel, repairing existing equipment, and installing SCADA upgrades.

Shade Structure

There is a shade structure currently covering one of the two electrical control stations. This plan proposes installing a similar shade structure over the second panel to protect it from the elements. The new shade structure will be similar in design, color, and height to the existing structure.



Install New Shade Structure Over Electric Control Panel (To Match Existing Structure)

Existing Shade Structure (To Remain)

Screening

The existing block walls, chain-link fencing, and landscaping screen the well yard from neighboring views. The walls are made of 4" tan concrete blocks and are 7' in height. They form the corners of the well yard providing a terminus for the chain-link fence. The 6' chain-link fence spans between the block wall corners with an additional 1' of barbed wire on top to provide security. Tan privacy slats are inserted into the chain-link voids making the fence opaque.



Block Wall Corners (To Remain)



Fencing with Privacy Slats and Barbed Wire (To Remain)

Landscaping in the form of evergreen shrubs and trees further screens and softens the site blending it in with its surroundings. These screening elements will remain in place and unaltered, maintaining the current neighborhood character.



#### Circulation

Tucson Water technicians will enter the site through the existing vehicular gate along Cloverland Avenue to service the equipment as necessary. On-site parking is provided for technicians, eliminating the need for on-street parking.





## B. Design Compatibility

This special exception request is to upgrade the well's SCADA system and install a shade new shade structure to protect an existing electric control panel. The overall site layout maintains the current configuration and preserves existing screening and landscaping. The proposed shade structure is situated next to the existing shade structure. It will use similar materials and be similar in height to the existing structure. Vehicular access and parking will remain in the same configuration. Aside from maintaining or replacing minor well components, the site will remain unaltered.

### 1. Applicable Use-Specific Standards

The proposed utility distribution system use is appropriate within the R-1 zone when special consideration is given to minimize adverse impacts associated with the use on adjacent properties. The following lists the applicable use-specific standards as required by the UDC for utility distribution systems in the R-1 zone and demonstrates how the SCADA control building meets the intent of all applicable use specific standards outlined in UDC Section 4.9.11.A.1, .2, .5, .8, .9, and .11.

- *Use Specific Standard 4.9.11.A.1: The setback of the facility, including walls or equipment, shall be 20 feet from any adjacent residential zone.*

As demonstrated in Exhibit III.A: Preliminary Development Plan, the new shade structure will be located along the yard's western boundary next to an existing shade structure. This structure is located at least 20' from the western property boundary.

- *Use-Specific Standard 4.9.11.A.2: Where a facility is not enclosed within a building, the surrounding screen shall be used as the building wall for the purposes of setbacks.*

As demonstrated in Exhibit III.A: Preliminary Development Plan, the well yard is enclosed by a combination of block walls and chain-link fencing with privacy slats. The SCADA system will be entirely contained within the well yard.

- *Use-Specific Standard 4.9.11.A.5: The use shall not have any service or storage yards.*

No permanent service or storage yards are proposed with this special exception application.

- *Use-Specific Standard 4.9.11.A.8: Any building housing such facility shall be in keeping with the character of the zone in which it is located. The Design Review Board (DRB) shall review all applications and make recommendations to the Zoning Examiner. The DRB shall review architectural style, building elevations, materials on exterior facades, color schemes, new mechanical equipment locations, light of outdoor areas, window locations and types, screening, landscaping, vehicular use areas, and other contributing design features.*



A DRB application will be submitted to the to ensure the shade structure design is compatible with the surrounding neighborhood.

- *Use-Specific Standard 4.9.11.A.9: The use shall be located wholly within an enclosed building or within an area enclosed on all sides with a masonry wall or compact evergreen hedge, not less than six feet, nor more than ten feet, in height.*

As demonstrated in *Exhibit III.A: Preliminary Development Plan*, the SCADA Upgrade and new shade structure will be located within the well yard and enclosed by the existing block wall and chain-link fence. The existing landscape will remain in place to continue screening the site from neighboring views.

- *Use-Specific Standard 4.9.11.A.11: the use shall be limited to water pumping and storage facilities, telephone exchanges, and power substations with an input voltage no greater than 138 kilovolts.*

The improvement area and entire well site are solely used for water pumping and distribution facilities. No other uses are proposed.

## **2. Building Setbacks**

As shown in *Exhibit III.A: Preliminary Development Plan*, the proposed shade structure is set back 20' from the western property line.

## **3. Transition of Building Heights**

The proposed shade structure will be similar in height and located next to the existing shade structure, approximately 8'. The new structure will also use similar materials to match the current structure. The location and materials of the new shade structure will ensure it blends in with the existing structure.

## **4. Landscaping & Screening**

The existing perimeter wall/fence and landscape screening vegetation will remain unaltered. These elements screen neighboring views while maintaining neighborhood character.

## **5. Vehicular Use Areas**

The well site accommodates the minimum parking standards outlined in UDC Section 7.4.4. The Utilities Use Group requires one (1) parking space per 500 square feet of Gross Floor Area (GFA), with a minimum of two (2) parking spaces per facility. The well yard provides space for two parking spots within the enclosed fence. A parking lot on the southern half of the property with approximately 33 parking spaces can handle any additional parking.



**C. Post-Development Hydrology**

The new shade structure is the only new impervious surface proposed. Its small size, approximately 44 square feet, will produce minimal runoff, contained on-site. The site's natural drainage condition will remain in its current state with no adverse impacts created by the proposed improvements.

**D. Utilities**

All utilities necessary for the well to properly functionality currently exist on the property.

